King County REGIONAL E-911 STRATEGIC PLAN

Leadership Group

January 19, 2017

1

Today's Agenda

- Welcome
- E-911 Program Office & Interim Advisory Group Updates
- Strategic Plan Process Update
- Issue Brief
- Technology Draft: Look Ahead
- Round Table

King County

REGIONAL E-911 STRATEGIC PLAN

2

September 20, 2016 Meeting Notes Approval

King County

REGIONAL
E-911
STRATEGIC PLAN

3

Strategic Plan Process Refresher

King County

REGIONAL
E-911
STRATEGIC PLAN

4

5

Scoping Recommendations

6
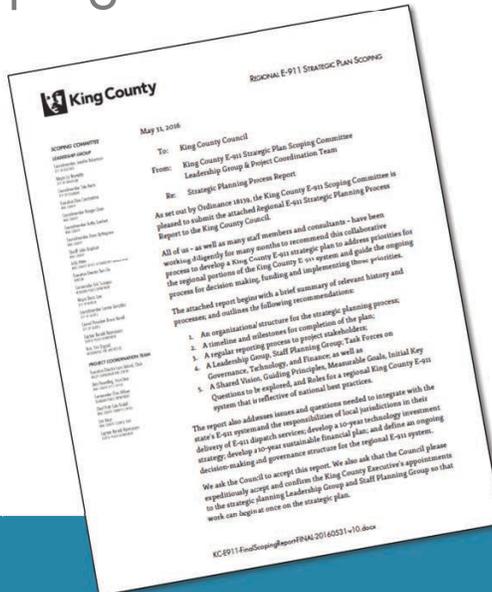
From Scoping

LEADERSHIP DIRECTION:
Shared Vision

- *Consistent with national best practices, the King County Regional E-911 System will be among the best in the country in terms of:*

  – Rapid and effective routing of requests for service

  – Effective deployment of evolving technology

  – Efficient use of public resources

  – Adherence to the guiding principles

King County

REGIONAL
E-911
STRATEGIC PLAN

7

From Scoping

LEADERSHIP DIRECTION:
Guiding Principles & Goals

Guiding Principles

- Process
  – Transparency
  – Project Management Principles
  – Collaboration
  – Predictability
  – Advocacy
  – Inclusion

- Finances
  – Fiscal Responsibility
  – Financial Sustainability
  – Cost Effective

- Standards
  – National Best Practices
  – Performance Metrics
  – Continuous Improvement

- **Goals**
  – No Request Lost
  – Prompt Response
  – Seamless System-wide Technology
  – Meet or Exceed Industry Standards
  – Equity
  – Secure, Resilient & Survivable

King County

REGIONAL
E-911
STRATEGIC PLAN

8

LEADERSHIP DIRECTION:

Roles

From Scoping

- Oversight
  - King County Council = ultimate authority
  - Regional Policy Committee = recommendations to Council
  - King County Executive = oversees operations; refers & signs legislation

- Functions
  - E-911 Program Office provides E-911 routing network
  - PSAPs interrogate callers and dispatch assistance

- Governance
  - E-911 Program Office → Dept. of Exec. Services
  - PSAPs → local stakeholders

- Funding
  - E-911 Program Office is supported by dedicated excise taxes
  - Program Office distributes a portion of excise taxes to PSAPs
  - Most PSAP costs are borne by the PSAP stakeholders

King County

REGIONAL E-911 STRATEGIC PLAN

9

10

Scope of Work

Process Brief (√ done)

Issue Brief: (Today)
- Governance
- Finance
- Technology & Operations

1st Draft Recommendations: Technology & Operations (Mar.)

2nd Draft Recommendations: Technology & Operations (June)

Draft Recommendations: Finance (Aug.)

Draft Recommendations: Governance (Sept.)

Draft Strategic Plan (Oct.)

Final Strategic Plan (Dec.)

King County

REGIONAL E-911 STRATEGIC PLAN

10

11

12

13

14
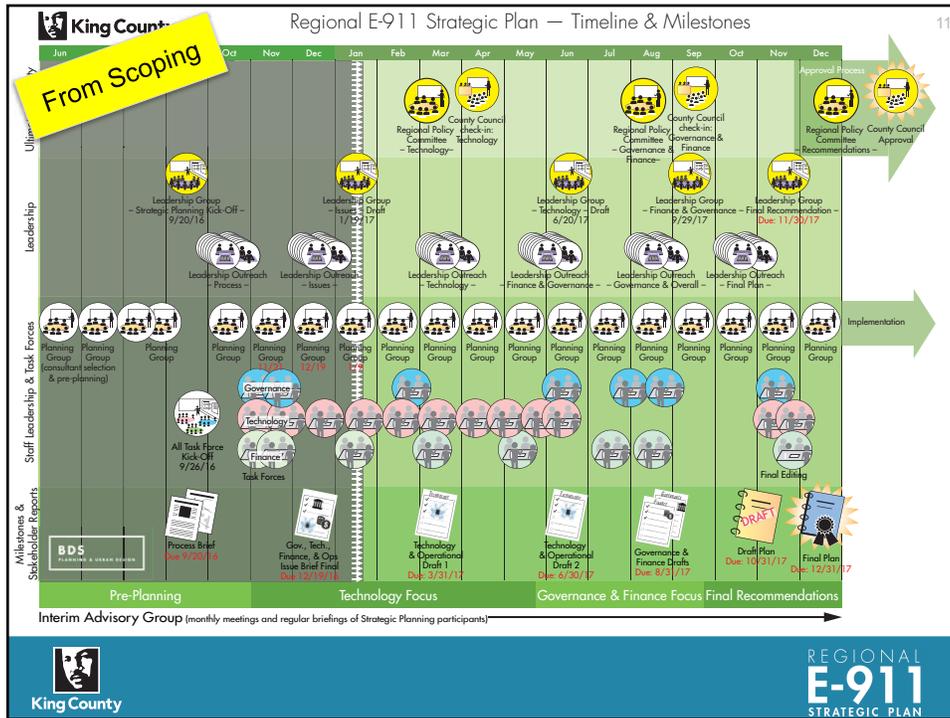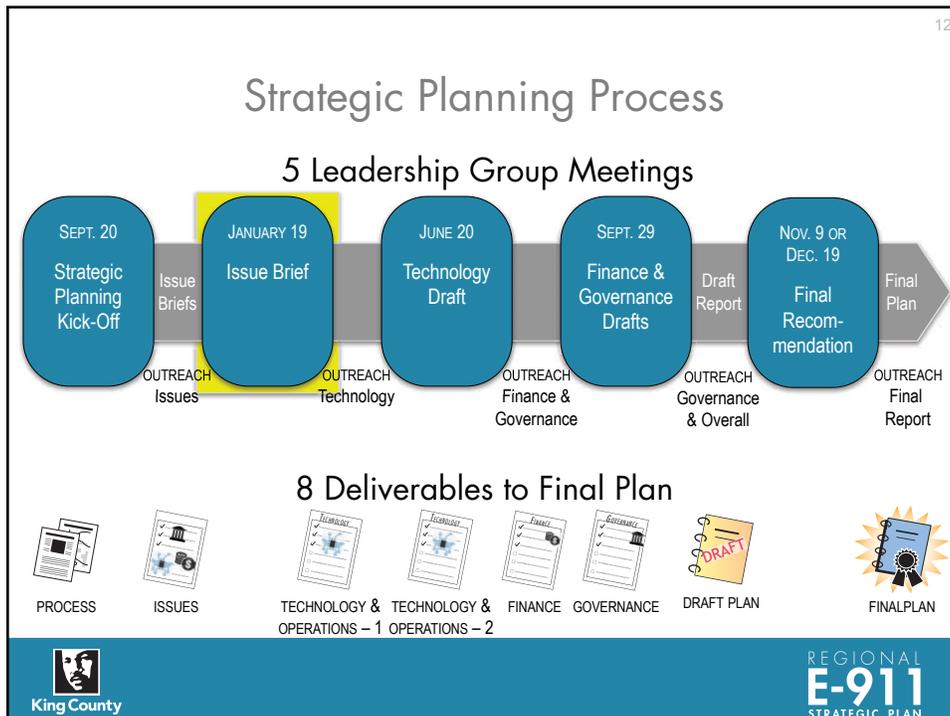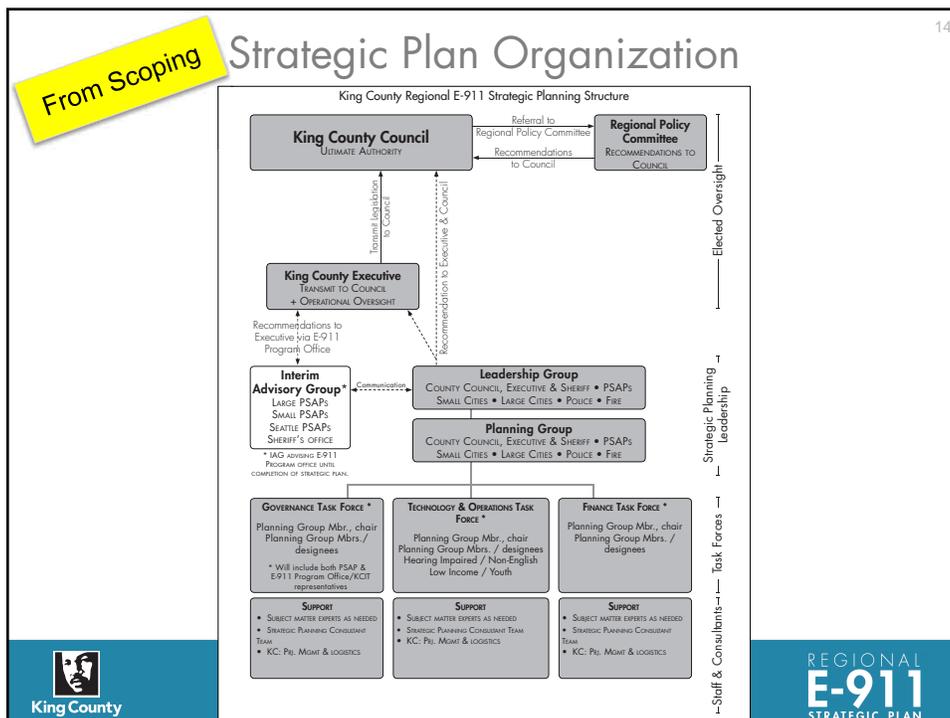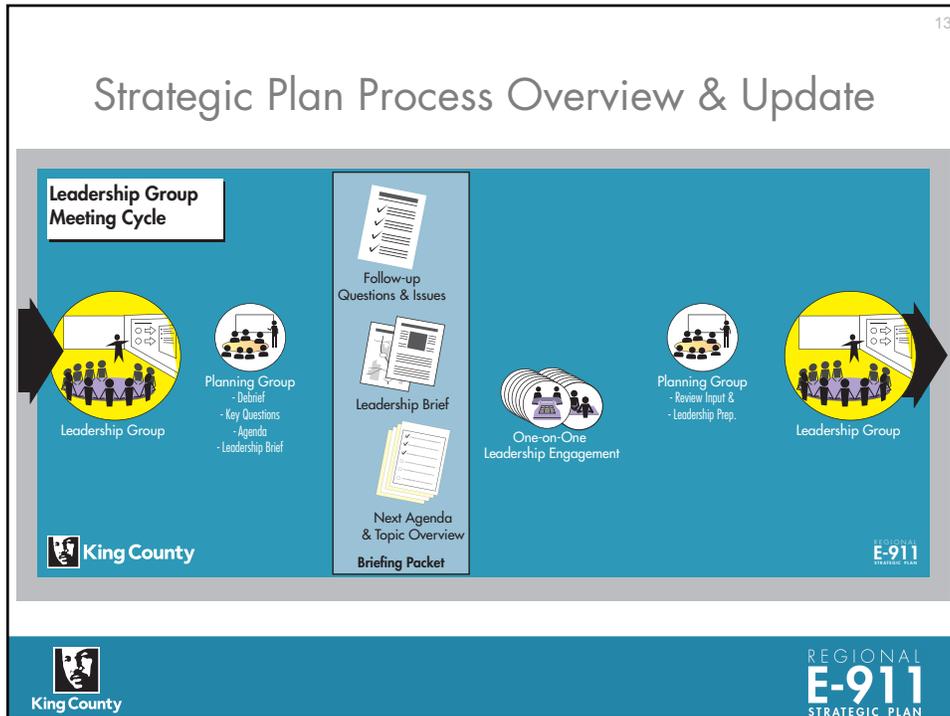
E-911 Program Office Update

15

King County E-911 Regional System

Current Services Provided by the Program Office

Secure • Reliable • Accurate

Draft
January 2017

9-1-1
POLICE
FIRE
MEDICAL

16

17

Presentation Objectives
E-911 Program portion of the Regional Partnership

- Introduce the factors that influence the services provided by the King County E-911 Program Office
- Summarize existing laws & standards that drive our core business
- Overview & 'shallow' drill down of current Regional E-911 Platform services
- Tee up suggested *core* services discussion

King County

REGIONAL
E-911
STRATEGIC PLAN

17

18

External Factors Influence Our Business & Technology Model
Our challenge is to anticipate & create informed responses to external drivers

Political
Operations are influenced by PSAPs, local jurisdictions, State & King County Executive, Department & Council leadership.

Economic
Costs are market-driven, yet the revenue model is stagnant, creating a pressure to modernize with limited new cash flow.

Social
We must anticipate citizen behavior and technology trends which affect our business/tech and revenue models.

Technology
We have a responsibility to anticipate & respond to the IT trends influencing citizens' behavior & service expectations.

Legislative
State and local legislation, and national standards, drive program operations and define programmatic requirements.

Environmental
Large influx of calls due to external factors (outages, natural disasters) must be managed with our tech & support teams 24/7.

18

9

Program Office Role is Guided by:
State Laws, County Ordinances & National Standards

- State Laws & County Ordinances
    - Washington State RCW (38.52, 82.14B) & WAC (118-66-050)
    - King County Ordinance 16946:
      *"Enhanced 911 emergency communications system" means a public communications system consisting of a **network, database, and on-premises equipment** that is **accessed by dialing or accessing 911** and that enables reporting police, fire, medical, or other emergency situations to a public safety answering point."* RCW 82.14B

- NENA & others standards for technology & service expectations.

- IT trends – external (citizen tech adoption) & internal (system and security modernization)

King County E-911 Program Delivers:
Regional systems, network, equipment & databases to route 911 Calls

Purchase & Maintain Equipment: 12 PSAPs, 1 test PSAP & 225 workstations

Update & Maintain: 380,000 VoIP records

Update & Maintain: ALI database 1.2 million wireline records

Deliver: over 2 million calls annually

Coordinate: call routing database w/40 addressing authorities

Manage: excise tax revenue of ~$23M annually

Coordinate: 80 Wireline, 374 Wireless & 100 VoIP providers

Update & Maintain: GIS data for 700,000 addresses

Routinely Serve: ~ 2 million residents
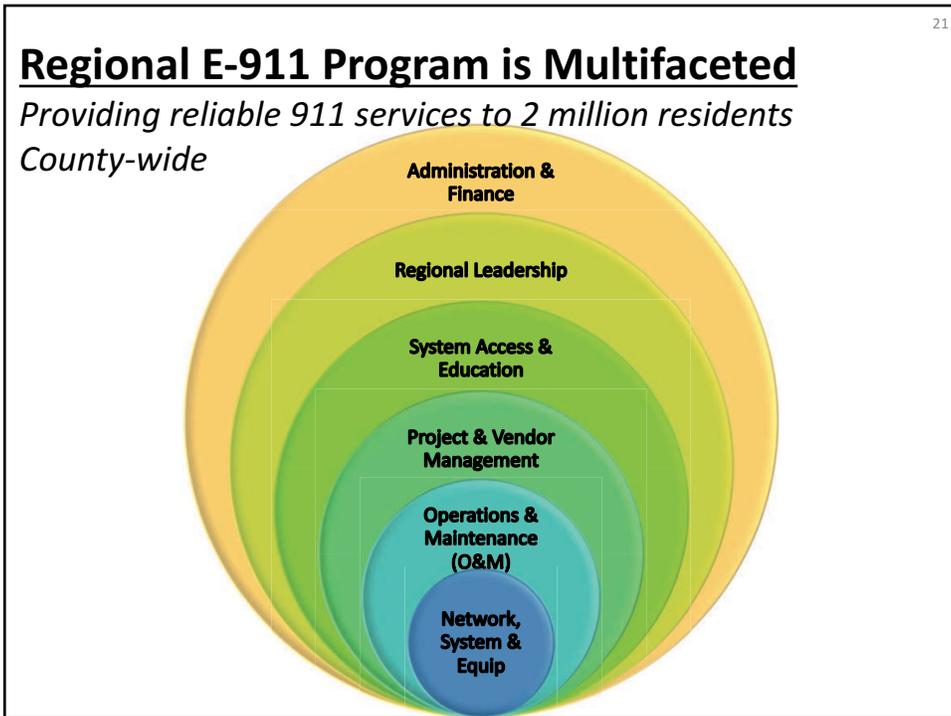
Regional E-911 Program is Multifaceted
Providing reliable 911 services to 2 million residents County-wide

System Infrastructure ... alls
Complex, constantly ... tting

Interim Advisory Group Update

King County

REGIONAL
E-911
STRATEGIC PLAN

23

Strategic Plan Process Updates

King County

REGIONAL
E-911
STRATEGIC PLAN

24

Slide 25
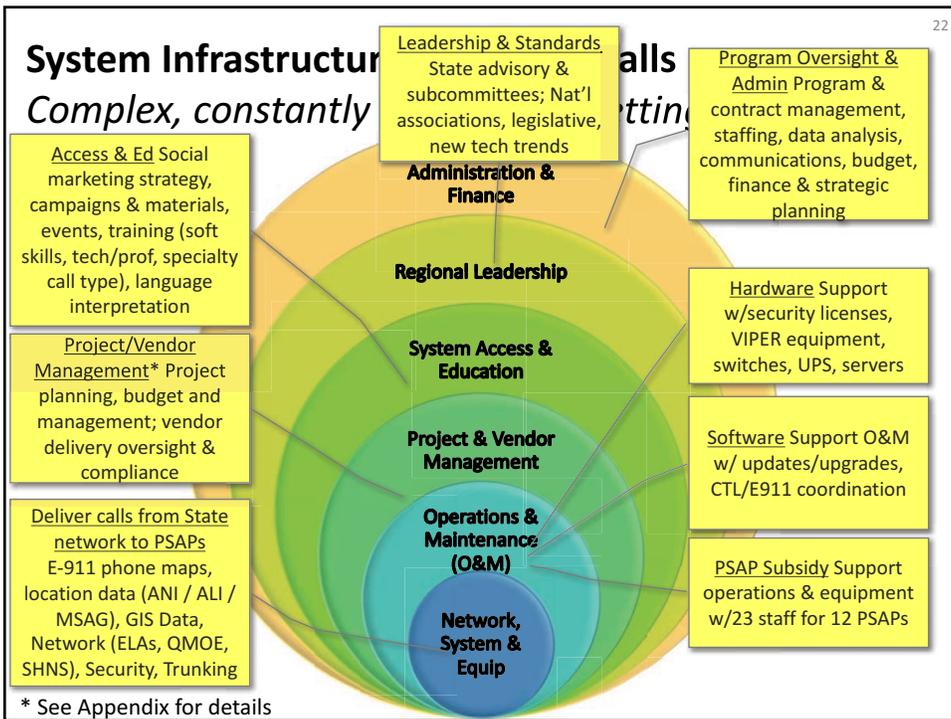
25

Rosters & Chairs

Leadership Group

Councilmember Claudia Balducci
King County

Executive Dow Constantine
King County

Councilmember Reagan Dunn
King County

Councilmember Lorena González
City of Seattle

Council President Bruce Harrell
City of Seattle

Councilmember Kathy Lambert
King County

Mayor Denis Law
City of Renton

Councilmember Tola Marts
City of Issaquah

Chief Operating Officer Brian Maxey

Seattle Police Department

Executive Director Tom Orr
NORCOM

Commissioner Tim Osgood
Woodinville Fire and Rescue

Mayor Liz Reynolds
City of Enumclaw

Councilmember Jennifer Robertson
City of Bellevue

Commander Erik Scairpon
Redmond Police Department

Sheriff John Urquhart
King County

Tom Koney (non-voting)
King County Department of Executive Services

REGIONAL
E-911
STRATEGIC PLAN

King County

25

Slide 26

26

Rosters & Chairs

Leadership Group

Councilmember Claudia Balducci	Mayor Denis Law	Councilmember Jennifer Robertson
Executive Dow Constantine	Councilmember Tola Marts	Commander Erik Scairpon
Councilmember Reagan Dunn	Chief Operating Officer Brian Maxey	Sheriff John Urquhart
Councilmember Lorena González	Executive Director Tom Orr	Tom Koney (non-voting)
Council President Bruce Harrell	Commissioner Tim Osgood	
Councilmember Kathy Lambert	Mayor Liz Reynolds	

Planning Group

Kathy Lombardo (Co-Chair)
King County

Lora Ueland (Co-Chair)
Valley Communications Center

Chad Barnes
City of Bellevue

Marilynne Beard
City of Kirkland

Diane Carlson
King County

Patti Cole-Tindall
King County Sheriff's Office

Edie Gilliss
City of Seattle

Lise Kaye
King County Council Staff

Commissioner Tim Osgood
Woodinville Fire and Rescue

Brian Smith
Seattle Police Department

Commander Chris Wilson
Issaquah Police Department

Meg Goldman (non-voting)
King County Executive Services

REGIONAL
E-911
STRATEGIC PLAN

King County

26

Task Force Rosters & Chairs

Governance

Task Force Members	Representing
Diane Carlson, Co-Chair	King County Executive Office
Edie Gilliss, Co-Chair	Seattle City Council
Lora Ueland	Large PSAPs
Kathy Lombardo	King County E-911 Program Office
Jane Christenson	Sound Cities
Kathy Baskin	Small PSAPs
Chad Barnes	City of Bellevue
Patti Cole-Tindall	King County Sheriff's Office
April Sanders	King County Council
Non-voting Members	
Meg Goldman	King County Dept. of Executive Services
Consultants	
Tim Ceis	CBE Strategic
Andrés Mantilla	CBE Strategic
Kate Nolan	CBE Strategic
Brian Scott	BDS
Gabriel Silberblatt	BDS

REGIONAL E-911 STRATEGIC PLAN — King County

27

Task Force Rosters & Chairs

Technology & Operations

Task Force Member	Representing
Bill Kehoe, Co-Chair	King County E-911 Program Office
Chelo Picardal, Co-Chair	City of Bellevue
Jess Nelson	Large PSAPs
Micki Singer	Small PSAPs
Jessica Sullivan	King County Sheriff's Office
Tim Osgood	Fire Districts
Gregory Hough	City of Seattle Council
Krista Camenzind	King County Council
Kellie Shapard	Abused Deaf Women's Advocacy Services
Russ St Meyers	City of Seattle PSAP
Deb Flewelling	King County Executive
Dee Hathaway	Sound Cities
Non-voting Members	
Kenn Moisey	State of Washington E-911
Meg Goldman	King County Dept. of Executive Services
Consultants	
Kevin Kearns	IXP
Brian Scott	BDS
Gabriel Silberblatt	BDS

REGIONAL E-911 STRATEGIC PLAN — King County

28

14

Task Force Rosters & Chairs

Finance

Task Force Members	Representing
Marilynne Beard, Co-Chair	Sound Cities
Tom Koney, Co-Chair	King County E-911 Program Office
Tatyana Bogush-Stakhov	Large PSAPs
Krystal Hackmeister	City of Bellevue
De'Wayne Pitts	King County Sheriff's Office
Tim Osgood	Fire Departments
Tom Goff	King County Council
Jennifer Devore	City of Seattle Council
Kate Davis	King County Executive Office
Tom Walsh	City of Seattle PSAP
Tara Murker	Small PSAPs
Non-voting Members	
Laura Pitarys	King County E-911 Program Office
Christine Chou	King County Information Technology
Gaukhar Serikbayeva	King County Performance, Strategy, Budget
Meg Goldman	King County Dept. of Executive Services
Consultants	
Morgan Shook	ECONorthwest
Tessa Krebs	ECONorthwest
Brian Scott	BDS
Gabriel Silberblatt	BDS

REGIONAL
E-911
STRATEGIC PLAN

King County

29

Equity Engagement

- Task Force Memberships:
  - Deaf, Deaf-Blind, Hard of Hearing

- Focus Groups and One-on-Ones:
  - Non-English Speakers
  - Low-Income
  - Youth
  - Seniors
  - Communities of Color

REGIONAL
E-911
STRATEGIC PLAN

King County

30

31

Discussion / Approval

Issue Brief

King County

REGIONAL
E-911
STRATEGIC PLAN

31

32

Terms

Shared Vision (from Scoping)

Mission (in progress)

Guiding Principles (from Scoping)

Goals (from Scoping)

Key Issues (Issue Brief)

Objectives (in progress)

Strategic Actions (in progress)

Key Performance Metrics (in progress)

King County

REGIONAL
E-911
STRATEGIC PLAN

32

Terms

Shared Vision

Mission (in progress)

"Statement of the King County Regional E-911 System and Program Office's organizational purpose and core services."

Guiding Principles
Goals
Key Issues
Objectives
Strategic Actions
Key Performance Metrics

REGIONAL
E-911
STRATEGIC PLAN

King County

33

Terms

Shared Vision
Mission
Guiding Principles
Goals

Key Issues (Issue Brief)

"The most critical issues currently facing the King County Regional E-911 System, as articulated by the Strategic Plan Task Forces in the Issue Brief."

Objectives
Strategic Actions
Key Performance Metrics

REGIONAL
E-911
STRATEGIC PLAN

King County

34

Terms

Shared Vision
Mission
Guiding Principles
Goals
Key Issues

Objectives (in progress)

"Specific statements of desired conditions responding to the Key Issues that can be measured within a specified timeframe. To be defined in Task Force draft recommendations."

Strategic Actions
Key Performance Metrics

King County

REGIONAL E-911 STRATEGIC PLAN

35

Terms

Shared Vision
Mission
Guiding Principles
Goals
Key Issues
Objectives

Strategic Actions (in progress)

"Activities that need to be taken in order to directly accomplish the Objectives. To be defined in Task Force draft recommendations."

Key Performance Metrics

King County

REGIONAL E-911 STRATEGIC PLAN

36

Terms

Shared Vision
Mission
Guiding Principles
Goals
Key Issues
Objectives
Strategic Actions

Key Performance Metrics (in progress)

"Data that will be collected and reviewed to track and measure
progress on achieving the Objectives. To be defined in Task Force
draft recommendations."

REGIONAL
E-911
STRATEGIC PLAN

King County

37

Governance Strategic Questions

- What is the **definition** of the King County Regional E-911 System?

- What is the **management structure** for the King County Regional E-911 System, in terms of authority, oversight, operations, accountability, responsibility, and performance monitoring?

- What is the major **decision-making structure** for the King County Regional E-911 System, including process management, research, input, and authority?

- What is the **conflict resolution process** for the King County Regional E-911 System?

- What is the **stakeholder engagement structure** for the King County Regional E-911 System, including input into decisions, reporting, and performance monitoring?

REGIONAL
E-911
STRATEGIC PLAN

King County

38

39

Technology & Operations Strategic Questions

- What is the **technology vision** for the King County Regional E-911 System, in terms of the technology's purpose, evolution, and investment approach?

- What are the **technology requirements** for integrating with the state's E-911 system, and for local jurisdictions to connect to the regional E-911 system?

- What is the **ongoing decision process** for technology investments, including options, tradeoffs, priorities, budgets, and schedules?

- What are the **ongoing performance metrics** for technology in the King County Regional E-911 System, including the performance of the system, vendors, and local partners?

- What are the **security requirements** for the King County Regional E-911 System, including protection of the system, individual privacy, and proprietary information?

REGIONAL
E-911
STRATEGIC PLAN

King County

39

40

Finance Strategic Questions

- What are the **procedures and processes** for forecasting, reporting, auditing, and operations related to King County Regional E-911 System revenue and expenditures?

- What are the **funding needs and revenue strategies** for the King County Regional E-911 System, including NG911 upgrades and keeping the system up to date over time?

- What are the **stakeholder reporting requirements** related to the King County Regional E-911 System finances, including revenue, expenditures, efficiency, and effectiveness?

- What are the **investment management policies** for the King County Regional E-911 System related to forecasting, investments, reserves, and contingencies?

REGIONAL
E-911
STRATEGIC PLAN

King County

40

Key Issues

Key Issues

- Governance
  - Decision-Making Authority, Feedback, and Transparency
  - Conflict Resolution
  - Coordination/Communication

- Technology & Operations
  - Pace of Change
  - Architectural Complexity and Strategy
  - Security
  - Call and Operational Complexity

- Finance
  - Fiscal Sustainability
  - Clarity of Financial Responsibilities
  - Financial Policies and Accountability
  - Distribution of Funding

Governance Key Issues

Decision-Making Authority, Feedback, and Transparency
"A formal process is needed to effectively make decisions about the KC E-911 Regional System and deal with emerging challenges. This should include clear roles, responsibilities, and communication protocol to enable timely decisions that are responsive to both established objectives and new information."

Conflict Resolution
"A conflict resolution process is needed, and should include how conflicts are identified, at what level of governance are they addressed, and how they are they resolved."

Coordination/Communication
"There is demand for establishing protocols for communication between the E-911 Program Office and the PSAPs, as well as among and between the PSAPS."

REGIONAL
E-911
STRATEGIC PLAN
King County

43

44

Technology & Operations Key Issues

Pace of Change
"The pace of technology change brings new public and user expectations that can stress the Regional E-911 System and its operations, and will require a continuous process to review and evaluate new changes and fiscal impacts."

Architecture Complexity and Strategy
"The overall architecture of the Regional E-911 System needs to be evaluated, with a strategy developed to respond to overall system objectives and evolving future conditions. This may require an ongoing Technology & Operations committee to conduct continuous review and evaluation."

Security
"Security of the Regional E-911 System overall, as well as other critical PSAP systems, needs to be a constant focus and priority."

Call and Operational Complexity
"The nature of emergency calls is changing rapidly, with ever-increasing volumes of calls from wireless devices and emerging technologies such as text, video and telematics calls to 911. This will drive a variety of ongoing technological, operational and funding issues for the Regional E-911 System overall and the systems and operations at the individual PSAPs. A technology and operations strategy must balance operational impacts with effectiveness gains from technology in a diverse environment with geographically distributed PSAPs, different jurisdictional boundaries and variety of call types handled by various PSAPs."

REGIONAL
E-911
STRATEGIC PLAN
King County

44

Finance Key Issues

Fiscal Sustainability

"Forecasted increases in operating and capital expenditures need to be evaluated in detail to determine whether alternative assumptions are needed. Forecasted growth in these expenditures is driving fiscal deficits in the future. However, revenue adequacy of existing sources will also need to be evaluated as part of a financial sustainability plan."

Clarity of Financial Responsibilities

"There is ambiguity about the appropriate roles of the E-911 Office and the PSAPs in supporting the Regional E-911 System. It will be important to determine what services the Program Office is required to provide, and beyond those costs, what are the financial implications, if any, for individual PSAPs."

Financial Policies and Accountability

"Clear financial policies and accountability are needed related to budgeting and accounting."

Distribution of Funding

"A clear and transparent system for distribution of funding between the E-911 Office and PSAPs and between PSAPs is essential, and this system must also be able to evolve with changing technologies and operations."

King County — REGIONAL E-911 STRATEGIC PLAN

45

Key Issues
Discussion / Approval

King County — REGIONAL E-911 STRATEGIC PLAN

46

King County E-911 Strategic Plan

Technology and Operations Component

E-911 Strategic Plan Leadership Group

January 19, 2017

DRAFT

47

What's the Scope: E-911 in Context

911 Call Flow

| Callers | Carrier Networks | WA State ESINet | King County E-911 | PSAPs | Responders |

ESI Net

E-911

PSAPs

The 'gray area' – overlaps in capabilities and shared responsibilities

Call transport to E-911 Network

Call location
Call routing
Call transport to PSAPs

Call handling

48
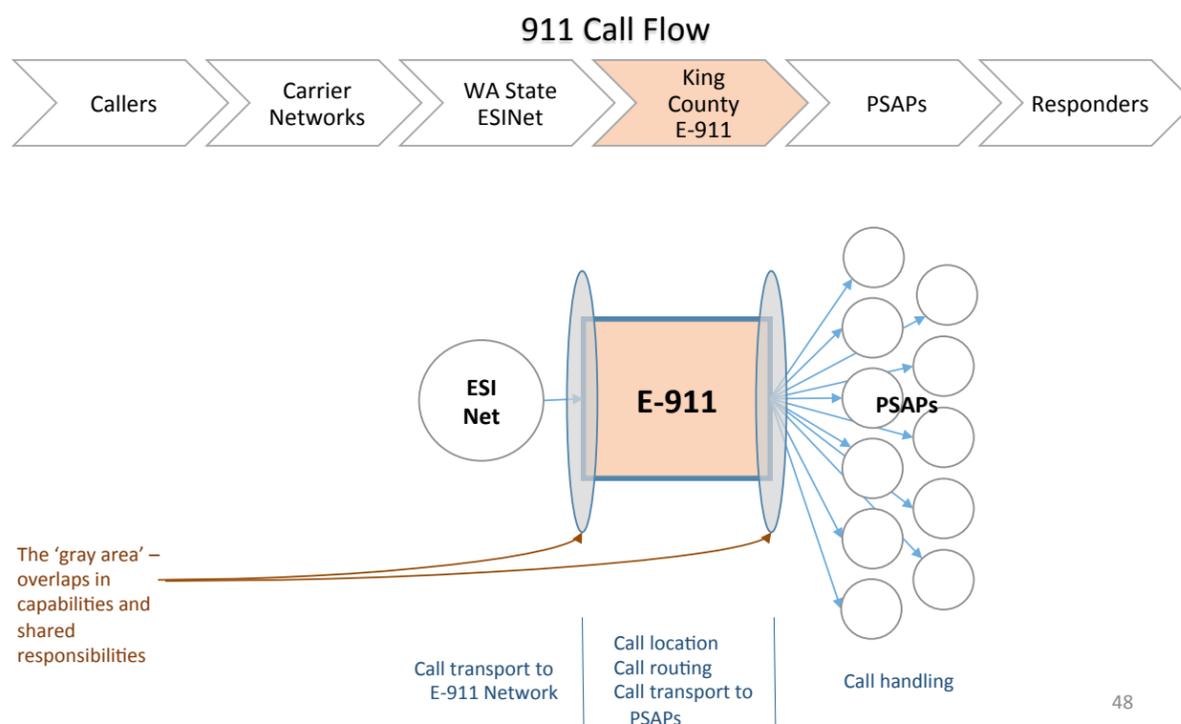
Relationship between Scoping Goals, Architecture Principles and Strategic Categories and Actions

ASPIRE

Strategic Plan Scoping Goals

ACHIEVE

Technology and Operations Strategic Categories and Actions

Enterprise Architecture Principles

BALANCE
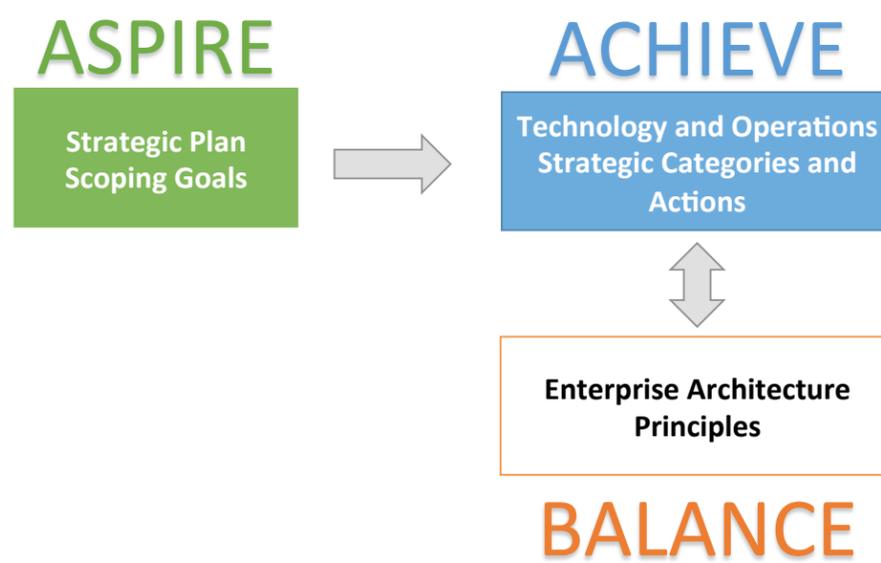
49

Putting It All Together

Strategic Plan Scoping Goals
- No Request Lost
- Prompt Response
- Seamless System-wide Technology
- Meet or Exceed Industry Standards
- Equity
- Secure, Resilient and Survivable

Strategic Categories / **Actions**

- Optimized Operations — Recommendations/actions for increasing operational effectiveness
- Secure and Resilient E-911 — Recommendations/actions for mitigating security risks and increasing resiliency
- Next Gen 911 Ready — Recommended roadmap to get to NG 911
- Accessible and Equitable Service — Recommendations/actions for enhancing accessibility to 911 services
- Integrated and Interoperable — Recommendations/actions for effective integration and interoperability

DRAFT

Architecture Principles: Public Safety | Capacity | Fair and Equitable | Security | Availability | Cost Effective | Conver-gence | Inter-operability

50

25

Enterprise Architecture Principles Are Used to Evaluate and Guide Technology Decisions

Principle	Description
Public Safety	• We should ensure service exists that protects the public's safety above all else
Capacity	• The capacity of the system should meet demand at all times without service interruption
Fair and Equitable	• We should seek to provide fair and equitable access so that all communities can receive and perceive value
Security	• All systems and solutions will need to meet the minimum level of security defined
Availability	• Solutions should be available at all times without service interruption
Cost Effective	• Financial decisions should be based on the most cost-effective solutions consistent with documented needs
Convergence	• We should converge toward common solutions, approaches and standards
Interoperability	• Software and hardware should conform to defined standards that promote interoperability for data, applications and technology

51

52

Technology & Operations Discussion

King County

REGIONAL
E-911
STRATEGIC PLAN

Round Table

53

King County REGIONAL E-911 STRATEGIC PLAN

Next Meeting **Leadership Group**:

June 20, 2017
9:00am – 11:00am

Chinook Building
1st floor Conference Center, suite 123
401 5th Avenue
Seattle, WA 98104

54